

What is claimed is:

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1. A medical device for filtering stenotic debris from a blood vessel,
comprising:
an elongate shaft having a proximal end and a distal end;
a filter coupled to the shaft adjacent the distal end, the filter having a proximal
region and a distal region;
wherein the proximal region of the filter includes a loose mesh that is sized to
allow stenotic debris to pass therethrough; and
wherein the distal region of the filter includes a tight mesh that is sized to prevent
the passage of stenotic debris.
2. The medical device of claim 1, wherein the loose mesh spans both the
proximal and distal regions of the filter, and wherein the tight mesh is defined by a
microporous membrane disposed over the loose mesh at distal region of the filter.
3. The medical device of claim 1, wherein the filter includes one or more
struts.
4. The medical device of claim 3, wherein the struts define the loose mesh,
the tight mesh, or both.

5. The medical device of claim 3, wherein the struts are distinct from the both the loose mesh and the tight mesh.

6. An embolic protection filtering device for filtering debris from a blood vessel, comprising.

an elongate shaft having a proximal end and a distal end;

a filter coupled to the shaft adjacent the distal end, the filter having a proximal strut region having one or more openings and a distal filtering region having one or more openings; and

wherein the one or more openings in the proximal region is larger than the one or more openings in the distal region.

7. The filtering device of claim 6, wherein the proximal strut region of the filter includes a first mesh that is sized to allow vascular debris to pass therethrough.

8. The filtering device of claim 6, wherein the distal filtering portion of the filter includes a second mesh that is sized to prevent the passage of vascular debris.

9. An embolic protection filtering device, comprising:

a guidewire having a proximal end region and a distal end region;

a filter coupled to the distal end region of the guidewire, the filter having a strut portion and a filtering portion;

the strut portion of the filter being defined by a porous mesh that allows vascular debris to pass therethrough; and

the filtering portion of the filter being defined by a microporous mesh that is smaller than the porous mesh and that is sized to prevent the passage of vascular debris.

10. The filtering device of claim 9, wherein the porous mesh spans both the strut portion and the filtering portion of the filter, and wherein the microporous mesh is defined by a filtering membrane disposed over the porous mesh at filtering portion of the filter.

11. The filtering device of claim 9, wherein the filter includes one or more struts.

12. The filtering device of claim 11, wherein the struts define the porous mesh, the microporous mesh, or both.

13. The filtering device of claim 11, wherein the struts are distinct from the both the loose mesh and the tight mesh.

14. An embolic protection filtering device, comprising:
a guidewire having a proximal end region and a distal end region;
a filter coupled to the distal end region of the guidewire, the filter having a proximal strut region and a distal filtering region; and

wherein an intersection region is defined at the intersection of the proximal strut region and the distal filtering region, the intersection region following a path that includes one or more struts extending proximally and one or more struts extending distally.

15. The filtering device of claim 14, wherein the proximal strut region of the filter includes a first mesh that is sized to allow vascular debris to pass therethrough.

16. The filtering device of claim 14, wherein the distal filtering portion of the filter includes a second mesh that is sized to prevent the passage of vascular debris.